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SUBJECT AND OBJECT IN MANDARIN.

BY- HUANG, SHUAN FAN
OHIO STATE UNIV., COLUMBUS, RESEARCH FOUNDATION

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TWO OF THE MAJOR GRAMMATICAL PROBLEMS MUCH STUDIED BY MANDARIN GRAMMARIANS IN THE PAST DECADE ARE THE EXISTENCE OF PARTS OF SPEECH AND THE CONTROVERSY OVER THE IDENTIFICATION OF SUBJECT AND OBJECT IN SENTENCES. THE GOAL OF THIS STUDY IS TO DEAL WITH A VARIETY OF PROBLEMS IN CONNECTION WITH THE NOTIONS OF SUBJECT AND OBJECT IN MANDARIN CHINESE WITHIN THE GENERAL FRAMEWORK OF TRANSFORMATIONAL THEORY. A BRIEF SURVEY OF THREE TRADITIONAL APPROACHES TO THE SUBJECT-OBJECT PROBLEM IS MADE, AND THESE APPROACHES ARE FOUND TO BE DEFECTIVE MAINLY IN FAILING TO MAKE THE BASIC DISTINCTION BETWEEN DEEP STRUCTURE AND SURFACE STRUCTURE, WHICH IS IMPORTANT IN DEALING WITH GRAMMATICAL RELATIONS LIKE SUBJECT-VERB AND VERB-OBJECT. IT IS FOUND THAT MANDARIN HAS A RELATIVELY FREER WORD ORDERING THAN HAS BEEN ASSUMED. SETS OF SYNTACTICALLY RELATED SENTENCES WITH THE SAME UNDERLYING REPRESENTATION ABOUND IN THE LANGUAGE. SUBJECT DELETION AND OBJECT TRANSPOSITION ARE FOUND TO BE COMMON PHENOMENA. SUCH TRANSFORMATIONS ARE SHOWN TO BE CONNECTED WITH LOCATIVE PHRASE FRONTING OR WITH "BA" AND "BEI" TRANSFORMATIONS. (IT)

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THE OHIO STATE UNIVERSITY

RESEARCH FOUNDATION

1314 KINNEAR ROAD COLUMBUS, OHIO 43212

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SUBJECT AND OBJECT IN MANDARIN

S. F. Huang

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1. Introduction

Two of the major grammatical problems that have exercised Mandarin grammarians in the past decade are the existence of parts of speech and the controversy over the identification of subject and object in sentences. Such problems are bound to arise in view of the fact that Mandarin has made practically no use of such inflectional categories as case, number, gender and tense whose utility in identifying grammatical categories in Indo-European languages is universally recognized. However, it is true that exclusive reliance on morphological inflections, such as those found in IE languages, has hardened into a difficult position that fails to recognize categorial distinctions in Mandarin. It seems clear that both problems can only be resolved in the case of Mandarin by considering more abstract syntactic information on the sentence level. We shall assume that it will be possible to identify parts of speech in Mandarin. It will be the goal of this study to deal with a variety of problems in connection with the notions subject and object in Mandarin and to show that the controversy will become in general resolvable by accepting the results presented in this paper.[1]

1.1 Some pre-systematic observations on sentence structure in Mandarin

In Indo-European languages, relations among constituents in a sentence can often, though not always, be revealed by simply looking at the inflectional endings of nouns, adjectives or verbs. To a very negligible extent, Mandarin also has overt, that is, phonologically nonzero, markers, such as -zhi for nouns, and -le for verbs. They are, however, derivational suffixes, not inflectional endings; and they are so limited in number that relying upon them would be totally useless. This is presumably one of the intrinsic difficulties inherent in the study of Mandarin grammar.

The grammatical meaning of the subject-predicate relationship is more that of topic to comment than that of the agent to action. Consider a normal Mandarin sentence:

(1) Wǒ zuótian jiālǐ yǒu shì bàn "As for me, as for yesterday, as for my home, there were things to do, - There were things for me to do yesterday at home"

It is necessary to recognize four distinct topics in the sentence, namely: Wǒ, zuótian, jiālǐ and yǒu shì and one

comment bàn. Since the tie between topic and comment is rather loose, it is quite possible to break the old one and form a new one so much so that a sentence seems often piled up with several subjects, i.e. topics. Further difficulty is seen in the flexible positions that a topic or a comment can assume in a sentence so that two exactly synonymous sentences, with a mere rearrangement of topic-comment relations are given quite distinct analyses in the traditional grammars.

Restated in modern terms, the topic-comment relations on the surface actually result from applications of grammatical operations such as object inversion, subject deletion, locative phrase extraposition etc. Thus, in the sentence:

2. Zhèjianshì zhǎo jioù tūngguò le "This matter (has) long (been) passed"
"This matter was agreed upon long ago"

we are translating tūngguò "agree upon" by a passive verb form, but there is no formal marker for the passive, and a closer translation would be "As for this matter, they agreed upon it long ago". That is, the underlying subject is not realized and the object is preposed. Similarly:

3. Zhèdifāng kěyǐ liǒbing "As for this place, (one) can skate (on it)"

4. Zhèhuar déi jiāo suěile "As for these flowers, (one) needs to water them"

5. Neǐfangdz suótian shīfǒ le "As for that house, (it) was burned yesterday"

6. Qùnián yoǔqe sueǐzhai "As for last year, there was a flood"

Thus the derived subject can be practically anything, commonly a locative phrase or a time phrase.

1.2 Traditional approaches to the subject-object problem

The first systematic Mandarin grammar, Mashi Wentung, was completed in 1898. Since then, the traditional grammarians have accumulated a wealth of materials as well as insights on how those materials are to be organized. They are important in that they lay the foundation for later grammatical studies and concomitantly reflect the approaches of structural linguistics prevalent on the continent of Europe since the turn of the century, which have come to exert a strong influence on Mandarin grammars.

From the standpoint of generative grammar, the traditional grammars are defective in many ways. First, no distinction is made between the abstract structure underlying a sentence and

the sentence itself. They restrict the domain of linguistic facts to physically identifiable actual utterances and their formally marked relations. They study sound-meaning correspondences; attempts to discover and characterize anything deeper than that are held up to ridicule. Reading these grammars, one is often impressed by the ad hoc character of the analysis, even where it seems factually correct. What is missing is a general theory of grammatical structure that is articulated with exactitude and with justification. The sole justification of a grammar of this sort is perhaps that it may allow sentences to be read or understood (in one sense of the term) in an economical notation by learners of the language. It is obvious that if we are to direct our aim at being able to describe the tacit knowledge that has been mastered by an ideal speaker-hearer, and to provide an explicit analysis of this ability to produce and understand sentences, then there are very fundamental aspects in which we should depart from the approaches of the pioneering grammars.

At least three approaches taken by the traditional grammars to the subject-object problem can be readily identified. There is no grammar which takes one of these approaches consistently, but the dominant theme is easily detected. First, the semantic (=notional) approach recognizes meaning relationships among agent-action-goal and assigns whatever is the agent to the subject,

whatever is the goal to the object of the sentence. Where no agent seems apparent, which is often the case, the sentence is labelled subjectless. Where two agents seem to be present, two subjects are postulated. Several difficulties with this approach suggest themselves. The surface sentence structure in Mandarin is such that there is an overwhelming number of subjectless sentences. The approach does not face the theoretical consequence which immediately arises and it also meets with serious pedagogical difficulties. Thus since the native interpretation of (7) and (8) do not differ, it is obviously wrong that they be given distinct analyses.

7. Zhèjian shì nǐ zùo dé liaǒ mā? "As for this matter, can you do (it)?"
8. Zhèjian shì suò dé liaǒ mā? "As for this matter, can (it) be done?"

This is, however, exactly what is done. The relation between the topic and the verb is construed as that of object to verb in (7), and as that of subject to verb in (8).[2]

As an illustration of conclusions arrived at using this approach, consider the definition of <u>subject</u> offered by a contemporary grammarian:

> "The subject is a constituent of a sentence; it normally is expressed by a noun, pronoun, or their equivalent; it indicates the behavior, property or nature of the predicate."[3]

This statement is as vacuous as it is useless. Reliance on such a definition can only lead to absurd decisions and, in many cases, to contradictory solutions. It is not clear whether the following sentences are analyzed in accordance with that definition. Nevertheless, contradictory treatment of some grammatical facts betrays the emptiness of that definition:

9. Qiǎn huāwǎn le "The money (was) spent"
10. Jīngli yě jiǎojin le "The stamina (was) exhausted too."

are syntactically very similar to the following sentences except that in (9)-(10) the subjects are deleted while in (11)-(12) are retained.

11. Tā shémme shìqing dōu zuò "He anything all did, - He did everything"
12. Xúeshēngmen gōngke zuò wǎnle "The students finished up the homework"

Sentences (9)-(10) are considered subjectless, those in (11)-(12) are analyzed as of normal subject-object-verb order. Note that this analysis, apart from lacking justification, also

fails to account for the following genuine subjectless sentences:

13. Waimian yoù qūa fēng le "Outside again blew the wind, - The wind was blowing outside again"

14. Yoù shi lioù yuè tiān le "Again is the days of June, - It is June again"

Thus traditional grammars fail to distinguish between (9)-(12) and (13)-(14). The distinction must be made. In (9)-(10), underlying subjects have been deleted; in (13)-(14) there is no underlying subject.

The second approach to the problem of the subject-object is the dependence upon context of situation. A typical statement emphasizing the importance of it is quoted below:

> "In Mandarin, until studies of its morphology and syntactic rules have been pursued to fullness, linguistic environments and the context of situation should be the only basis on which to undertake grammatical analysis."[4]

Given a sentence, the grammarian's task is first of all to attempt to conjure up the diverse linguistic environments in which the sentence is uttered and proceed from there to analyze it. The sentence:

15. Wǒde huà tā tīng bù tǒng "As for my words, he did not hear and understand, - He did not understand what I said"

is understood in several ways in accordance with situations in which it may occur. It can be uttered in any of the following situations:

16. You talk with him, because he did not understand what I said.
17. He did not understand what I said because I did not speak correctly.
18. He was a newcomer and could not understand what I said.
19. He did not understand what I said because he only understands his own dialect.

Instead of endlessly speculating on the various situations in which the utterance may be said, we should assume that the sentence itself is ambiguous depending upon how we are to interpret wǒde huà and tīngtǒng. Since a grammar cannot be expected to account for the way contexts of situation determine how an utterance is understood, a grammar which includes a theory of semantic interpretations ought to be logically prior to a theory of situations.[5]

The third approach in connection with the subject-object problem in Mandarin is the word order theory, a position taken notably by Chao. This approach is quite straightforward; it is a simple association of the topic with subject, and comment with

the predicate. The necessity of such an approach and the justification for it is presumably to circumscribe the transformational rules like object inversion, ellipsis, etc. and to compromise the topic-comment character of Mandarin sentences. It conveniently regards whatever precedes a verb as the subject and whatever follows it as a predicate. The subject is conceived as the ideas or a group of ideas first preserved in the mind of the speaker and the predicate what is adjoined to it. Since any of the grammatical categories may precede a verb and since subject deletion and locative phrase extraposition are very common transformations in Mandarin, a strict word order approach becomes totally futile as an attempt at characterizing grammatical relations. One of the most ludicrous statements stressing the observance of word ordering of a sentence to the disregard for grammatical structure is the following:

> "It must be emphasized that the subject always precedes the verb. There is no such thing as inversion. We say what is in our mind."[6]

One corollary in derivation of the word order standpoint is then the disallowance of grammatical inversions and deletions etc. The arguments which are offered are that, in the first place, sentences are so uttered that they are designed to answer to different questions or to respond to different questions. Consequently, what is said first must be a bona fide subject. Thus

20. Duèimiàn laíle qīgerén "From the front comes a man"

21. Chē tā qí zoǔle "The bicycle he rode off"

are not sentences with inverted subjects since each is intended to answer questions. What happens in the front? or what happens to the bicycle?

It is characteristic of traditional grammar that the subject is regarded as the surface derived subject, it fails to observe that the surface structure does not directly express the meaning relations of the words except in the simplest cases, such as the ones above, coincidentally. It is the deep structure underlying the actual utterance, a structure that is purely mental, that conveys the semantic content of a sentence.

The second argument is that reverting back to the "original" order often gives rise to ungrammatical sentences. In the following, (22) is grammatical, (23), inverted, is ill-formed.

22. Lián wǒde huà tā dōu tīng bù tǒng "Even my words he did not understand"

23. *Tā dōu tīng bù tǒng lián wǒde huà

In answer to the argument, we say that if lían "even" is selected by a phrase structure rule, then it triggers a transformation (to be called Lian transformation) automatically preposing the object wǒde huà to the sentence initial position to

obtain (22). (23) is ungrammatical simply because the obligatory transformation has not been applied.

2. The subject relation

2.1 Deep structure and surface structure

The distinction between the deep structure and surface structure of sentences underlies the basic conceptions motivating the inception of the theory of generative grammar. The deep structures generated in the base component are crucial for describing the formal syntactic properties of sentences and the way they are understood by the application of projection rules which amalgamate the readings of lower-order constituents to arrive at readings for higher-order constituents. The surface structure of a sentence, derived from the application of transformational rules to deep structures, is relevant only to the way sentences are pronounced, to their perceived or intended forms. The deep and surface structures of the sentence need not be identical. That is, the underlying organization of a sentence relevant to semantic interpretation is not necessarily revealed by the actual arrangement and phrasing of its given components. Our notion of grammatical structure is greatly enriched by conceiving of each sentence as represented by a set of phrase markers, including the abstract underlying ones, and a set of transformational rules that rearrange, replace or delete items of the sentence. This conclusion is important when we are

dealing with grammatical relations like subject-verb, verb-object, etc. In order to understand a sentence, we note grammatical relations among its parts by referring to its underlying phrase marker (UPM). Despite the fact that sentences (24) and (25) contain inverted elements, we understand them to be synonymous.

24. Fǒ bǎ fángdz shāole "The fire ba houses burned up"
25. Fángdz fǒ shāole "The houses (were) burned up (by the fire"

The underlying structure of (24) and (25) are similar, though not completely identical. (24) is derived by Ba transformation which has the effect of preposing the object NP before its verb; (25) is the result upon application of Bei transformation; however, the presence of Bèi "by" is not required in this sentence, as in many other sentences. We also observe that for a fixed verb type, in this case, an action verb, the noun phrase elements which occur with Bǎ or Bèi are just those that can occur in the position after the action verb. Hence we have:

26. Laǒhǔ yaǒle nóngfū "The tiger ate the farmer"
27. Laǒhǔ yaǒle shítoú "The tiger ate the stone"

but not:

28. *Shítoú yaŏle láoshŭ "The stone ate the tiger"

Similarly:

29. Laŏhŭ bă nóngfū yaŏle
30. Laŏhŭ bă shítoū yaŏle
31. *Shítoú bă laŏhŭ yaŏle

and:

32. Aìqíng zémó tā "Love inflicts him"
33. Shìyè zémó tā "The business inflicts him"

but not:

34. *Tā zémó shìyè "He inflicts business"

Similarly:

35. Aìqing bă tā zémó le
36. Shìyè bă tā zémó le

If Ba construction and Bei construction are not derived from deep structures in which the subject and object element are in the same order as in active sentences, all these selectional restrictions must be stated twice. Thus we find that the formal motivation for deep structure provides an immediate explanation for sentence relatedness and also contributes to the simplicity of total grammatical description. Here, we may also observe that Ba transformation and Bei transformation are two of the most common transformations in Mandarin.

2.2 Categories and relations

It has been pointed out that divorcing the problem of grammatical categorization of parts of speech from the study of the subject-object relation in Mandarin has had most unfortunate consequences in the recent decade. The discussion of subject-object relations cannot move in a conceptual vacuum where grammatical categories are not presupposed. Pioneering grammarians came early under the influence of European scholars like Maspero, Vendryes and Karlgren, etc., whose pronouncement that Mandarin is a language devoid of grammatical categories has done disservice to much of the later grammatical thinking. Such a pronouncement is misplaced as well as uninformed.[7]

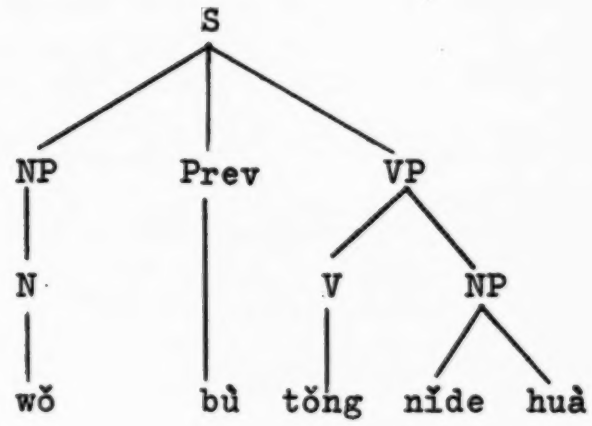
Morphologically, it is true, the major lexical categories of noun, verb and adjective are indistinguishable. In other words, it is impossible to formulate distinguishing criteria

purely in terms of inflectional shapes. However, the intrinsic lexical meaning associated with each lexical item and the combinability of each of the lexical items into various nominal compounds, verbal compounds and adjectival compounds in regular and predictable ways argue for the existence of categorial distinctions. On the syntactic level, categories are clearly delineated. It is important to observe that in no instance in the recent controversy over grammatical categories in Mandarin is the argument focused on the syntactic relations on sentence level. This again supports the claim that there are categorial distinctions in Mandarin; it also falsifies any pronouncement in contradiction to the claim. Fruitful start with work on Mandarin grammar lies in recognizing the inherent meanings of lexical items and their syntactic functions in relation with other items in a sentence.

An explicit account of the relational character of the notions subject, predicate, main verb and object by defining them uniquely in terms of relations among category symbols in a configuration of the base phrase structure has been given by Chomsky, intended furthermore as universal characterizations of categories and relations applicable to all natural languages.[8] The sentence:

38. Nǐde huà wǒ bù tǒng "As for your words, I don't understand"

has the UPM



where wǒ is the subject-of the sentence Nǐde huà wǒ bù tǒng and bù tǒng nǐde huà is its predicate; Nǐde huà is the direct object-of the verb phrase tǒng nǐde huà and tǒng its main verb. It would be perfectly correct to say that nǐde huà is the surface subject of the sentence, allowing extensions of the grammatical relation, subject-of, that is [NP,S], to the derived structure. This extension to, or rather preoccupation with the surface structure, has been the limitation of the old Mandarin grammars, as noted previously. In the base structure there is only one occurrence of the category NP immediately dominated by the single category S. This is not true of the surface structure. In (38), both nǐde huà and wǒ are NP's immediately dominated by S. Apparently, word order is useful in determining grammatical relations defined by surface structure, but it plays no role in the determination of deep structure.

2.3 Locative phrase as subject

In the following discussion, problems are mostly taken from early grammars and linguistic journals where they have often received different and sometimes contradictory analyses. Exhaustive accounts of all of the problems are not possible but all that have come up repeatedly in those grammars will be given the primary attention in this study.

Sentences with locative phrases are to the old grammars one of the often disputed topics. While locative phrases are generally signaled by the presence of a preposition in English, a locative phrase in Mandarin very often occurs sentence initially without any preposition. It has post-positional particles, called localizers by Chao, whose functions are twofold: they function either in ways similar to English prepositions or as localizers of the preceding NP. There is a true preposition zài introducing adverbial phrases which always occurs sentence finally but only rarely initially. The term locative phrase will be inclusive of these two types: with or without zài but always accompanied by a localizer.

For the sake of convenience, though not for theoretical considerations, it is useful to draw a distinction between what will be called locative sentences and existential sentences. In each of the two types, the sentence is always, in its normal order, headed by a locative phrase. The locative sentence generally consists of a locative phrase and an adjectival predicate; the

existential sentence involves a locative phrase, a main verb with the progressive aspect marker -zhe followed by an NP:

39. Wūdzli heīqiqide "The interior of the room is all dark, - It is all dark in the room"
40. Yuàndzwai nèngjingde hěn "The outside of the yard is very quiet, - It is very quiet in the yard"
41. Zuōshang fàngzhe yīpinhuā "On the table is put a vase of flowers"
42. Qiángshang guàzhe yīfúhuàr "On the wall hangs a picture"

(41) and (42) are examples of existential sentences.

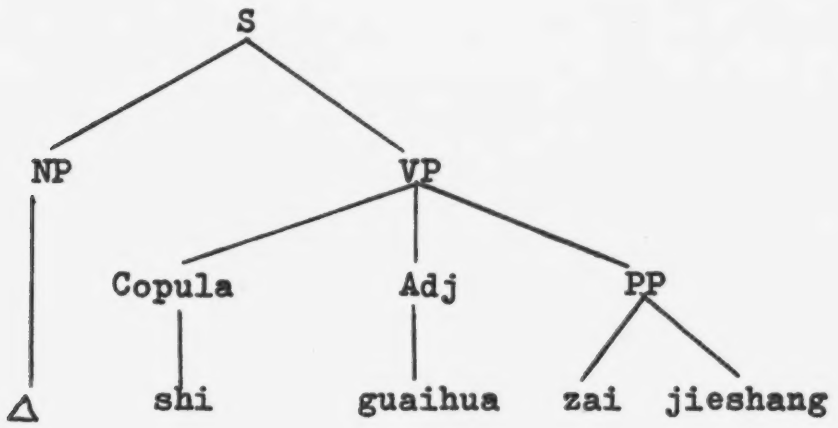
Let us first examine the nature of the locative sentence. The problem is with the subject of the sentence. It seems that the characteristics of a locative sentence are (1) the absence of the preposition zaì (2) the locative phrase is always in the sentence initial position (3) obligatory deletion of the copula shì. One might suspect that the locative phrase is the deep structure subject, which is exactly the position of the traditional grammars. Note that practically every locative sentence is translatable in English by a pair of sentences which are paraphrases of each other. (42) is synonymous with (43) and (44):

42. Jiēshang quaihuá de

43. It is slippery in the street.

44. The street is slippery.[9]

However, we have syntactic evidence for not considering the locative phrase in Mandarin to be the base subject. Presumably, it is fronted to the initial position when there is no underlying subject. Thus we assume (42) has the UPM:



To obtain the derived structure, we delete the copula shi, which need not concern us here. Secondly, we obligatorily prepose zai jieshang and then delete zai. The rules can be formulated as follows.

45. Locative phrase preposing rule

SD: $\underset{1}{\#(NP)}$ $\underset{2}{V}$ $\underset{3}{Adj}$ $\underset{4}{PP}$

SC: 1 2 3 4 → 1+4 2 3 Ø

46. Zai deletion rule

SD: $\#\left[\begin{matrix}PP \\ zai\end{matrix}\ \begin{matrix}\ \\ NP\end{matrix}\right]$
$\quad\quad\ \underline{1}\ \underline{2}\ \ \underline{3}$

SC: 1 2 3 → 1 Ø 3

The structural condition for rules (45) and (46) require that no underlying subject be present. (46) is ordered after (45). Additional illustrations showing the operation of these rules are:

47. Waitoú tou nĕng "The outside is cold; It is cold outside"
48. Wūdzlǐ jìng le yīxia "The room is quiet for a while; It is quiet for a while in the room"

The justification for treating the locative phrase as resulting from deletion of zài is supported by considering sentences with a genuine underlying subject such as (49) and (50), corresponding respectively to (47) and (48):

49. Nǐ zai waitou dou nĕng "You are cold outside"
50. Tāmen zai wūdzlǐ jìngle yīxia "They are quiet for a while in the room"

There are sentences which appear on the surface to be similar to the locative sentences. But we shall assume these

localizers have taken on the property of nominalizing the preceding NP, distinct from the locative sentences we have so far discussed. That is, the localizers lǐ and bīan in (51) and (52) are genuine nouns meaning the inside of and the outside of:

51. Wūdzlǐ xiàng ge lèshèduei "The room is like a dumping ground"

52. Méiwaìbian chéng le gōngréncheng "The outside of the door becomes a labor camp"

Note that deletion of lǐ and bīan does not affect grammaticality of (51) or (52), but deletion of localizers in locative sentences will either result in ungrammatical sentences or change the intended meaning.

Sentences with nominal predicate, also preceded by a locative phrase are extensions of the locative sentence. Consequently, (53) and (54) are structurally identical to (42), (43) and (48):

53. Méiwian xiàngshì fēng yǔ shēng "There seems to have winds and rains outside"

54. Xuéxiaòli yīpian xīnxin xìangrongde yàngdz "A thriving atmosphere is felt in the school"

Extending locative sentences to include cases like (53) and (54), we slightly reformulate the rule (45) as follows:

55. Locative phrase preposing rule

SD: $\underset{1}{\#(NP)}\ \underset{2}{V}\ \underset{3}{\left\{\begin{matrix}Adj\ P\\NP\end{matrix}\right\}}\ \underset{4}{PP}$

SC: 1 2 3 4 → 1+4 2 3 Ø

We now turn our attention to existential sentences. They differ from the locative sentences in that the former contain an action verb followed by the progressive aspect marker -zhe. As an illustration, (56) has become a classical example of the existential sentence:

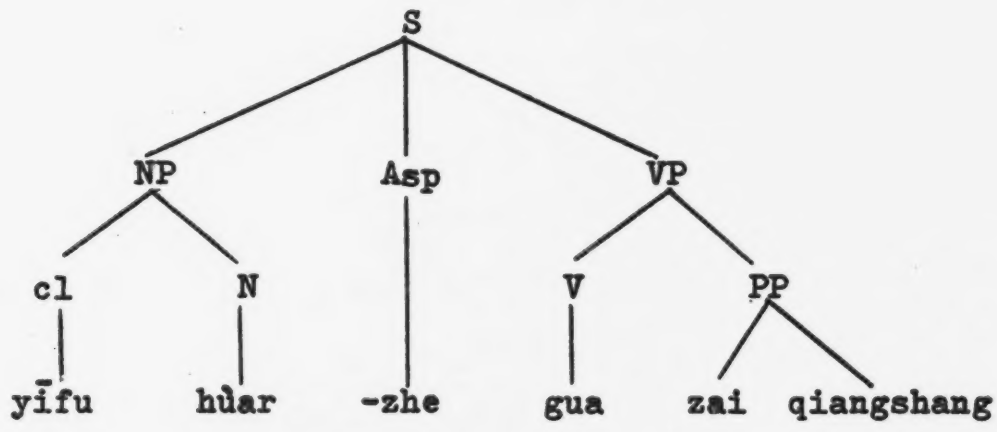
56. Qiángshang guàzhe yīfú huàr "The top of the wall (was) hung a picture - A picture was hung on the wall"

Sentence (57) and (58) are exact paraphrases of (56):

57. Yǒu yīfu huàr guà zài qiángshang

58. Yīfu huàr gùa zài qiángshang

They ought to have a common underlying representation which looks like:



To obtain (56), one simply preposes zài qiángshang and obligatorily deletes zài. (58) is presumably derived by deleting the aspect marker -zhe whenever it co-occurs with zài. It is not at all obvious how one should account for the derivation of (57) except in an ad hoc fashion, attaching perhaps yǒu to the subject NP, regarding it as a sort of transformational constant.

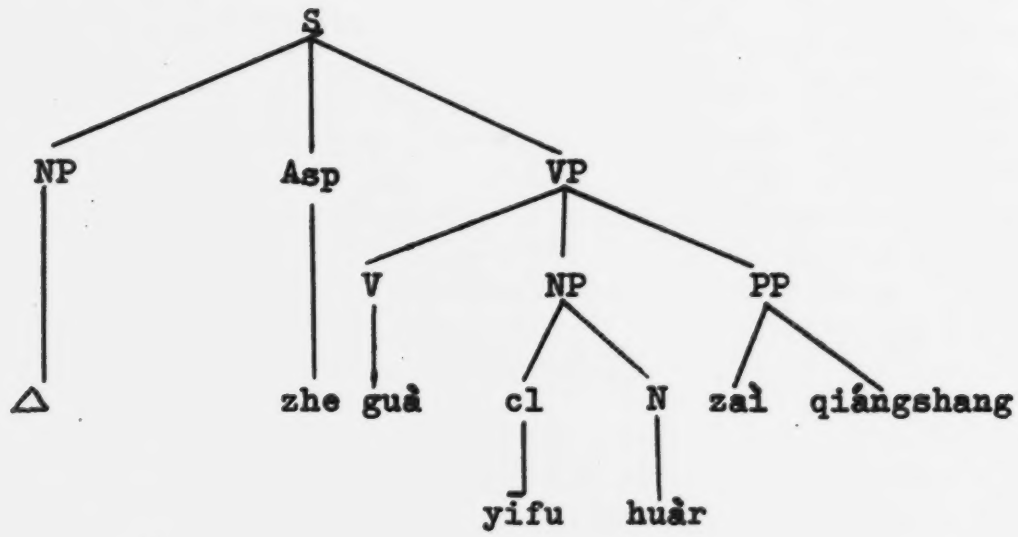
We observe that the transformational rules required for the existential sentences are quite similar to those needed for locative sentences except that they are optional in the former case. We regard (56), (57), (58) as mere stylistic variants.

However we suspect that the underlying representation postulated for sentences (56), (57), and (58) conceals some deep structure relatedness. In particular, (56) seems clearly a case

where Bei and the agent NP have been deleted. Parallel to (56), one finds:

60. Wǒ guà yīfú hùar zài qiángshang "I hung the picture on the wall"

We are tempted to assume that instead of (59), sentences (56)-(58) ought to have the following UPM:



Sentence (60) has the same UPM as (62) except that the subject wǒ is chosen. When the underlying subject is not specified, an obligatory transformation fronts either yīfúhuar to obtain (58) or zaì qiángshang to derive (56). Prior to the application of these rules, however, an earlier aspect attachment rule moving aspect morphemes to the position immediately following verbs needs to be applied.

Based on such abstract underlying structure, the transformational rules required can be stated as follows:

63. Topic selection rules for existential sentences

SD: # $\begin{bmatrix} NP \\ \Delta \end{bmatrix}$ Asp $\begin{bmatrix} X & \begin{Bmatrix} VP \\ PP \\ NP \end{Bmatrix} & Y \end{bmatrix}$ Z

1 2 3 4 5 6 7

SC: 1 5 3 4 ø 6 7

Condition: X, Y are constituents

64. Zai deletion

SD: # $\begin{bmatrix} PP \\ zai \end{bmatrix}$ NP

1 2 3

SC: 1 ø 3

65. Zhe deletion

SD: V zhe zai

1 2 3

SC: 1 ø 3

The rules (63) and (64) are formally very similar to rules (45) and (46); such a similarity reveals the sentence relatedness between locative and existential sentences.

If the analysis presented above is correct, it will prove to be equally valid in accounting for the essentially similarly structured yoǔ sentences.

Arguments have been advanced to maintain a dichotomy of yǒu sentences; one involves the existential yǒu, the other the possessive yǒu.[10] It seems that the sole criterion on which such a distinction is based is the relevance of animateness of surface subjects. The arguments offered are hardly convincing. In the following, (66) is viewed as containing the possessive yǒu, (67) existential yǒu.

66. Tā yǒu yīge caìyuan "He has a vegetable garden"
67. Tā nèir yǒu yīge caìyuan "His place has a vegetable garden"

The distinction is made depending on whether the surface subject is the topic in a topic-comment relation. Since ta is the topic in (66), it is the subject; second, whether the noun phrase after the verb yǒu is the object NP of yǒu or the dependent subject of an intransitive yǒu. Thus yǒu in (66) is regarded as transitive, but intransitive in (67). Thirdly, the adverbial serves always as the topic in existential yǒu sentences. In (67), tā nèir is an adverbial since it is the topic.

These statements are entirely circular and question-begging. No justification is offered in support of the claim. What deeper sense of distinction is there for regarding two yǒu's as different apart from the vague topic-comment relations?

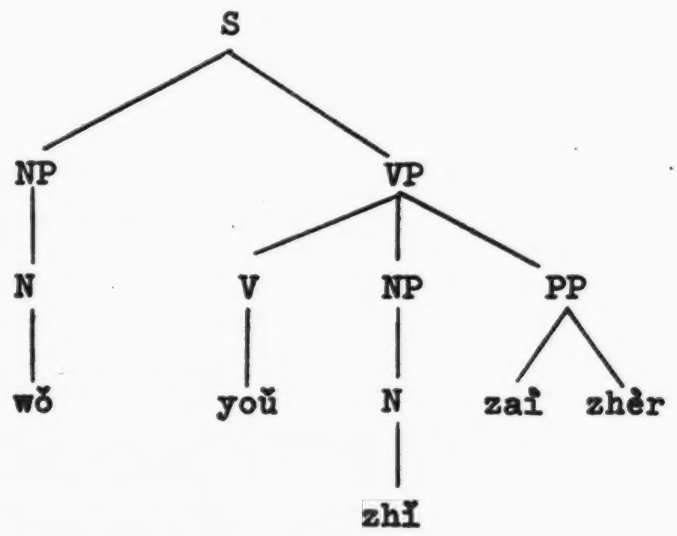
The correlation of <u>yoŭ</u> sentences with existential and locative sentences can best be appreciated by observing their underlying structures. In:

68. Wŏ yoŭ zhĭ "I have papers"
69. Wŏ zhèr yoŭ zhĭ "I have papers in my place"
70. Zhĭ zài wŏ zhèr "Papers are in my place"

(68)-(70) are paraphrases of each other, so are (71) and (72):

71. Zhūoshang yoŭ zhĭ "There are papers on the table"
72. Zhĭ zài zhuōshang "Papers are on the table"

Assuming the common UPM for (68)-(70) to be:



Omitting the preposition phrase zài zhèr, we get (68). In order to obtain (69), we prepose zài zhèr and delete zài. Such rules are instances of rules (45) and (46) or (63) and (64). (70) is presumably derived by preposing the whole VP and then deleting yoǔ, inserting further wǒ after the preposition zài. Semantic theory will probably account for the fact that zhèr and wǒ zhèr have the same reading; hence the presence of wǒ is quite optional in this case.

As a final illustration of sentence construction having the locative phrase in the deep structure, let us deal briefly with sentences expressing meteorological conditions. These sentences may or may not have the locative phrases in the surface structure. (73) and (74) are illustrative:

73. Hǎo zê "(It is) rather hot"

74. Wūdzlǐ haǒ zê "(It is) rather hot in the room"

While in (74) a locative phrase is expressed; in (73) a location is understood. When we hear (75):

75. Xià yū le "The rains dropped, - It was raining"

We understand it to mean either:

76. Wàimian xià yǔ le "It was raining outside"

or:

77. Tiān xià yǔ le "It was raining in the sky"

Similarly,

78. Guā fēng le "Blows wind, - The wind was blowing"

and:

79. Wàitóu guā fēng le

are understood in the same way. Consequently we may invoke rules (45) and (46) to derive (75)-(79). Analogous to other constructions we have surveyed, locative phrase fronting is obligatory for sentences expressing weather conditions, since one does not find:

80. *Xià yǔ le wàimian

81. *Guā fēng le wàitou

With this analysis, we complete our discussion of various types of sentences taking locative phrases in the deep structure. The existential sentences, locative sentences (in its extended sense), yǒu sentences and sentences stating meteorological conditions are found to be related in that they share the following syntactic properties:

(1) In their underlying structures, there is invariably a constituent preposition phrase directly dominated by VP,

(2) Locative phrase preposition is obligatory for locative sentences and for sentences expressing meteorological conditions. It is also obligatory for existential and yǒu sentences if the underlying subject is not realized in the derived structure.

(3) Deletion of zài is obligatory upon the application of locative phrase fronting.

2.4 Nominalized sentence as subject

Any major lexical category in Mandarin can be used as subject NP without necessitating morphological changes. This is true of nouns, verbs and adjectives, in their conventional sense. There are two nominalizing suffixes -zhe and -de; -zhe functions equivalently to the infinitival marker to in English, -de has the agentivizing function, or it may be thought of as introducing a relative clause, as in:

82. Jiào shū de yào yǒu xuéwèn "Teach books de needs to have knowledge, - One who teaches needs to have knowledge"

83. Chīfàn de shì tāde dìdi "The one who eats is his brother"

84. Chóng ìndu lái de Bù duō "Those who are from India are few"

Any type of sentence, except the copula sentence, can be transformed into this kind of construction, suggesting that it is derived from a relative clause with the head noun deleted, often resulting in a specialized meaning.

Nominalization on the sentence level takes place without any structural change. What appears to be a full sentence can be subjectivized (or objectivized) in a matrix sentence in the most flexible fashion. Here are some illustrations:

85. a. Tā zhǒule kěxí "(That) he is gone is a pity"

b. Kěxi tā zhoǔ le "(It is) a pity that he is gone"

86. a. Wǒ tóngyì nǐ qù "I agree (that) you go"

b. Nǐ gù wǒ tóngyì "(That) you go I agree"

87. a. Wǒ zhīdào shéi xǐhuan nǐ "I know who likes you"

b. Shéi xǐhuan nǐ zhīdào "Who likes you is known by me"

Although there is practically no restriction on the sentence types which can be embedded, there are certain constraints

on the main verb in a matrix sentence. If the nominalized sentence is subjectivized, the verbs that co-occur with it are limited to those that normally take abstract subjects. These include the copula shì, causative verbs lìng, shǐ, ràng, adjectives like hǎoxiang, kěxí, bùchùo, kěyi, etc.

Since sentence nominalization does not involve any structural change, there is no reason why a formative needs to be provided for in the base. We simply derive the sentence from the symbol S:

88. S → N VP
NP → S (de)
VP → V (NP) (S)

Such a rule may also be extended to accomodate sentences with potential marker -de. (89) is one such example:

89. Tā xiě de kuài "He wrote very fast"

It has been argued conclusively that the best solution to this type of sentence is to consider it as containing a nominalized subject sentence.[11] The particle -de is the nominalizing marker. The phrase structure rule generating this nominalized sentence may be formulated as follows:

90. S → NP VP

NP → S de

These rules underlie the following sentences of the same type:

91. a. Tā zuò de duānzheng "He sits erect"

b. Fǒche pǎo de fēeikuai "The train runs extremely fast"

c. Tā xiǎng dāile "He thinks so much that he becomes carried away"

When an embedded sentence contains a transitive verb and an object NP, the verb is always reduplicated unless the object NP is preposed to the preverbal position:

92. Tā xǐe zhǐ xǐe de bàng "He writes very well"

but:

93. Tā zhǐ xǐe de bàng

We believe that the simplest explanation is to postulate a reduplicative formative, deleting it on condition that the object NP has been fronted earlier. Thus revising the rules (90) slightly, we get:

94. S → NP VP

NP → S (Nm) (Nm = nominalizing formative)

Nm → RV de (RV = reduplication of verbs)

VP → V (NP) (S) (V = any verb)

95. RV deletion rule

SD: V Nm RV de

1 2 3

SC: 1 Ø 3

3. Verb and object

3.1 Verbs and adjectives in Mandarin

The term verb is used here in the broad sense of any word which can be negated by the negative morpheme Bù "not" or Méi "has not, did not" and which can serve as the predicate of a sentence. Since adjectives in Mandarin can be used as full predicates and do not need any copular type of verbs like be, look, appear, seem, to introduce them, they are hereafter referred to as Vadjective. In fact, verbs and adjectives, as used in their traditional sense, are different only on the most superficial level. Such a distinction can be removed, it seems, by accepting the following arguments.

Verbs shall be categorized into transitive and intransitive verbs, not so much according as they take or do not take objects as by the kind of object they do take. Intransitive verbs take

only cognate objects; transitive verbs, on the other hand, can take any kind of object, including cognate objects. We shall see that adjectives (Vadjectives) are syntactically closely related to intransitive verbs (Vi) and shall be classified as a subclass of Vi. Note that a Vi (including Vadjectives) often becomes transitivized by being compounded with a resultative complement, thus kū "cry", xiào "smile", tíe "fall" in the following examples have become transitive verbs:

96. Kū yǎ le sǎngdz "Cries hoarse one's throat"
97. Xiào téng le dùdz "Laughs till the stomach hurts"
98. Tíe shāng le tuěi "Falls and injures the leg"

Of the following arguments for the contention that verbs and adjectives in Mandarin are indistinctive (i.e. numbers of a single category) syntactically, some are due to Chao.[12]

(I) Co-occurrence with the negative preverb Bu "no, not"

All verbs can be negated by the negative preverb Bu. Similarly, all adjectives may co-occur with Bu. One finds:

99. a. Tā lái "He comes"
    b. Tā Bù lai "He does not come"
100. a. Tā xǐe zhì "He writes characters"
     b. Tā Bù xǐe zhì "He does not write characters"

Similarly:

101. a. Xìnniàn qiáng "Belief (is) strong"

b. Xìnniàn Bù qiáng "Belief (is) not strong"

102. a. Tāmen bìng le "They are ill"

b. Tāmen Bù bìng "They are not sick"

We see that adjectives occur in the predicate position without a copula or its equivalent. If adjectives and verbs are viewed as one category, then in the verb phrase expansion rule, a saving of one symbol is gained in each occurrence of VP. The copula shì in the phrase structure rules is needed only to introduce nominal predicates.

(II) Co-occurrence with méi "has not, did not"

The form méi has two functions. One is the abbreviated form for méiyoǔ "does not have". The other is the auxiliary verb for "has not" "did not" and is the negative of V-zhe, V-guò, V-le where -zhe, -guò, -le are aspect markers. Thus:

103. a. Tā zànzhe suèijiao "He is standing (and) sleeping"

b. Tā méi zànzhe suèijiào "He is standing (and) sleeping"

104. a. Tā dàoguo tiāntáng "He has been to the fortune land"

b. Tā méi dàoguo tiāntáng "He has been to the fortune land"

The occurrence of mei with adjectives is limited to negation of -le forms when adjectives take cognate objects. As in:

105. a. Tā tà le sānsùei "He is older by three years"
b. Tā méi tà sānsùei "He is older by three years"
106. a. Qíao aǐ le lǐangeǐ "The bridge is too short by two feet"
b. Qíao méi aǐ lǐanguǐ "The bridge is too short by two feet"

However, if adjectives take the aspect marker -gùo, then, like verbs, they may be preceded by méi. Note that there is no restriction on the occurrence of -gùo with adjectives. The following are illustrations; -gùo indicates that an event has taken place at least once before.

107. Jìhuà méi chénggōng gùo "The plot has not been successful before"
108. Rdz méi kùailè gùo "Life has not been happy before"

(III) Co-occurrence with adverbs of degree hěn "very", zuèi "most" etc.

Verbs and adjectives take many of the same type of adverbials. They can take naturally any sentential adverbs, such as

hūeicang "extremely", lǜlǜ "frequently", zuèijîn "recently" etc. A verb, intransitive or transitive, when taking a quantified object, can also be modified by adverbs of degree, just as an adjective.

109. Tā hěn xǐe qùo jǐpīan wénzang "He very much has written a few articles, - He has written quite a few article"

110. Tā hěn zoǔle yīzhèndz "He very much has walked a while, - He has walked quite a while"

It is often remarked that with many adjectives, perhaps all, the occurrence of hěn is obligatory. Dragunov has argued that hěn is not to be looked upon as an ordinary adverbial when it is in front of an adjective but it has the function of verbalizing the adjective. With the presence of hěn and adverbials of degree, there is a substantial quantity of words which shift between verbal and adjectival functions in the most facile way with no changes. Prepositions occurring in English translation appear syntactically. The following are illustrative of this point:

111. a. Tā hěn shēngqi "He is very angry"

b. Tā hěn shēng nǐde qî "He is very angry with you"

112. a. Tā hěn mǎnyi "He is very satisfied"

b. Tā hěn mǎnyi nǐde bǐaoxìan "He is very satisfied with your work"

113. a. Wǒ hěn bào qìan "I am very sorry"

b. Wǒ hěn bào qian dìdide gùoshī "I am very sorry about the fault of my brother"

114. a. Zhèige shì shifēn míngbai "The matter is quite clear"

b. Wǒ shífen míngbai zheige shì "I am quite clear about the matter"

115. a. Tā hěn tǐtie "He is very considerate"

b. Tā hěn tǐtie tāde qidz "He is very considerate toward his wife"

116. a. Zhè xīaoxi hěn lìng ren xīngfen "The news is exciting"

b. Zhè xīaoxi hěn xīngfen le měigeren "The news excites everyone"

In each of the above pairs of sentences, an adjective directly governs an object without an intervening preposition. There is probably little motivation to suspect the occurrence of a preposition in the deep structure. Also it seems highly probable that systematic pairing of these sentences is a consequence of the presence of the same grammatical category.

(IV) Co-occurrence with cognate objects

It is a common phenomenon for verbs and adjectives in Mandarin to take cognate objects. Intransitive verbs are not verbs which do not take objects, but verbs which take only cognate objects.[13] Cognate objects are of various types:

(a) Cognate objects for times of an action: -húei, -eì, -fān, -tàng, -biàn

Some cognate objects are specifically associated with a verb. For example:

dǎ liǎng xìa	"strike a couple of strokes"
kàn liǎng yǎn	"look two eyes, give two glances"
zoǔ yī tàng	"walk a trip"
shūo yī huéi	"make a mention"
mà yī dùn	"scold a spell, give a scold"
bìng yī chǎng	"be ill for a spell, be sick once"
liàng le yī xìa	"be bright for a while"

The number of times an action is taken may be expressed by a repetition of the verb or adjective itself:

kàn yi kàn	"take a look"
toǹg yi toǹg	"be painful for a spell"
jǐang yi jǐang	"explain a little"

(b) Cognate objects of duration are:

zhù le sānnian	"live three years"
děng le bàntian	"wait a half day"
nángùo le yīfor	"be sad for a while"

yōuyü le zhěngtian "be annoyed for a full day"

(c) Cognate objects of extent or quantity are:

zhǎng le sācùn "has grown three inches"

dà shíbèi "bigger by ten times"

màn le yību "too late by one step"

Besides, if we take into account the fact that intransitive verbs and adjectives can govern a direct object when compounded with resultative complements, we can speak of transitive adjectives as well as transitive verbs as having the syntactic feature [+___NP] where NP is either a direct object or a cognate object.

(V) Co-occurrence with the nominalizer -de, complementizer -de

Both verbs and adjectives can take the nominalizer -de to effect a modifying function.

Zoǔ de rén "walking people, one who walks"

Cīfàn rén "eating people, one who eats"

Céng kōng de rén "successful person, one who is successful"

Verbs and adjectives also take predicate complements introduced by the complementizer -de, and the same complement rules seem to apply regardless of whether an adjective or a verb is present. Thus we find:

117. Tā gāoxing de wàng le xíng "He is so happy that he forgets himself"

118. Tā pǎo de cī bù xìa fàn "He runs so much that he can't eat"

119. Suěi shēn de bù gǎn yóuyoǒng "The water is so deep that (one) can't swim"

Verbs or adjectives that have already been modified by a directional complement cannot take the complementizer -de. (120) and (121) are ungrammatical:

120. *Tā pǎo shànglaí de màn "He runs up too slowly"

121. *Tā gūanshàng mén gūanshàng de jǐn "He shuts up the door too closely"

We have seen that verbs and adjectives share many of the same syntactic properties, which cannot be attributed to accident. If we postulate a simple category, Verb, containing verbs and adjectives, the syntactic rules of Mandarin will not have to refer to both verbs and adjectives in the same place in the structural description of each rule. By so doing, the semantic component will also be simpler since projection rules will interpret two structures containing an adjective and a verb respectively as identical.

3.2 Verb and object relations

The object in Mandarin, as it is related to verbs, must be understood in a broader sense that commonly conceived. Some grammarians, like F. K. Li, have used the term complement to include both the object and the complement; some have proposed to eliminate the term object from the grammar and use Búyii "complement" instead.[14]

One important reason is that an object in Mandarin seems less regularly tied up with the meaning of its governing verb. The verb-object relations have been classified as follows:

(a) Causative: nearly all of the intransitive verbs can occur transitively in a causative sense. In fact, the class of verbs of this sort seems substantially much larger than the list given for English by Hall.[15] Some of the examples are:

(a) Causative

pǎo mǎ	"cause a horse to run"
dòu xīshuài	"fight crickets, cause crickets to fight"
kaī huèi	"open the meeting, cause the meeting to start"
shàng caí	"serves courses of dishes, cause courses of dishes to be served"
xià shān	"go down the mountain"
xià loúti	"go down the stairs"
laí fàn	"cause rice to come"

(b) Instrumental

Nǐ xiě maobi	"You write (with) the brush"
Tā bǎng shéngdz	"He ties (with) the rope"
Tā chī dàwan	"He eats (with) the big bowl"

(c) Locative

Wǒmen chī guǎndz	"We eat (in) a restaurant"
Wǒmen zǒu xiǎolù	"We walk (along) the path"
Tāmen tǎng dìban	"They lie (on) the floor"
Tā shang shushang qù	"He goes up to the tree"

(d) Temporal

Nǐ chī wanshang ma?	"Do you eat (at) night?"
Tā shùei baítian	"He sleeps (in) the daytime"
Wǒmen gǎn dàzhao	"We hurry (for) the early morning"

The linguistic validity of such a classification need not concern us here. What strikes us as peculiar is the fact that prepositions are not made use of, even in the case of intransitive verbs. Three possible solutions present themselves. We may either allow all these verbs, transitive or intransitive, to take locative phrases, instrumental phrases <u>as true objects</u> besides their usual function of taking ordinary direct objects or cognate objects. Alternatively, we might want to view these locative phrases etc. as preposition phrases in the deep structure; a later transformational rule will be required to delete both the preposition and the postposition to obtain derived

sentences. Lastly, it might be argued that the class of verbs of this sort is not a real class at all but a mere collection of idiosyncratic items to be marked respectively in the lexicon as capable of taking object-like NP's.

Actually, the size of this class of verbs is impressively large. The simplest explanation, within our framework, is to follow the first alternative, treating locative phrases, instrumental phrases etc., in English translation, as genuine objects.

3.3 Double object verbs

The verb gěi "give" and a number of compound verbs with -gei joined enclitically to a preceding verb can take two objects, an indirect object (IO) and a direct object (DO).[16]

In general, verbs which can take both IO and DO fall into three classes:

(a) Those that take an obligatory -gěi before IO:

122. Tā cuángei nǐ shemme? "What did he pass on to you?"
123. Tā méi jiaogei wǒ shemme "He did not hand me anything"
124. Tā shūgei nǐ xǔduo qián "He lost you much money"

(b) Those that take an optional -gei before IO:

125. Jiejie song(gei) wǒ lǐwù "My sister sended me gift"
126. Wǒ jiào(gei) tā suànshi "I taught him arithmetic"

127. Tā húan(gei) wǒ bǐ "He returned me the pen"[17]

(c) Those that never take -gei before IO:

129. Tā máfan nǐ xǔduo shì "He troubles you (with) many things"

130. Tā qiǎng le diànnóng yītouniu "He robs the tenant of a cow"

131. Wǒ qíng tā yīgebǐaa "I won him a watch"

We shall omit the discussion of the class (c) as well as the so-called pivotal construction (=telescoping verbs), concentrating on the classes (a) and (b). The class of verbs of this type shall be called Vgei.

In all of the compound verbs with -gei, it is possible to transport the position of the IO relative to DO. When, however, an IO is postposed, the presence of -gei is obligatory. Thus:

132. a. Wǒ sòng tā yībian shū "I sent him a book"

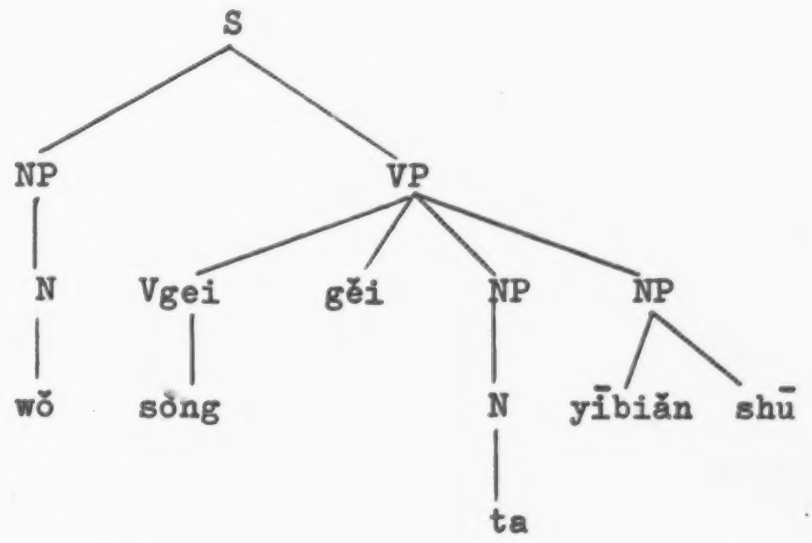
b. Wǒ sòng yibian shū gěi tā "I sent a book to him"

133. a. Wǒ líu tā tángguo "I saved him some candy"

b. Wǒ líu tángguo geǐ tā "I saved some candy for him"

Sentences (132a) and (132b) have the same underlying representation:

134.



Underlying sentences (132) and (133) is the phrase structure rule:

135. S → NP VP

VP → Vgei gei NP NP (S)

A simple transformational rule required for (132b) and (133b) would look like:

136. <u>IO shift rule</u>

SD: $\underset{1}{X}\ \underset{2}{Vgei}\ \underset{3}{gei\ NP}\ \underset{4}{NP}\ \underset{5}{Y}$

SC: 1 4+2 3 Ø 5

IO's of the indirect object construction in English are immune to Wh transformation. That is, (138) and (140) are ungrammatical:

137. I bought you a hat.

138. *Who did I buy a hat?

139. I gave you a book.

140. *Who did I give a book?[18]

There seems to be no such constraint on the IO's of Mandarin. The interrogative-pronoun questions are much simpler, formed simply by attaching the interrogative pronouns to the positions of interrogated elements.

Corresponding to (137) and (139) are (141) and (142):

141. Wǒ mǎigei nǐ yītìng màodz

142. Wǒ gěi nǐ yībian shū

In each sentence, the nominal elements wǒ, nǐ, màodz and shū can be converted to an interrogative pronoun shéi "who" and shémme "what". That is (143), (144), (145), (146) are all grammatical sentences.

143. Shéi gěi nǐ yītìng màodz?

144. Wǒ maǐgei shéi yītìng màodz?

145. Wǒ maǐgei nǐ yītìng shémme?

146. Wǒ gěi nǐ yībian shémme?

Likewise, indirect object constructions in English related to sentences with for have no passives; those related to sentences with to have two passives. That is, sentence (137) has no passive, both (147) (148) are ungrammatical. Sentence (139) has as passives both (149) and (150).

147. *You were bought a hat.

148. *A hat was bought you.

149. You were given a book.

150. A book was given you.

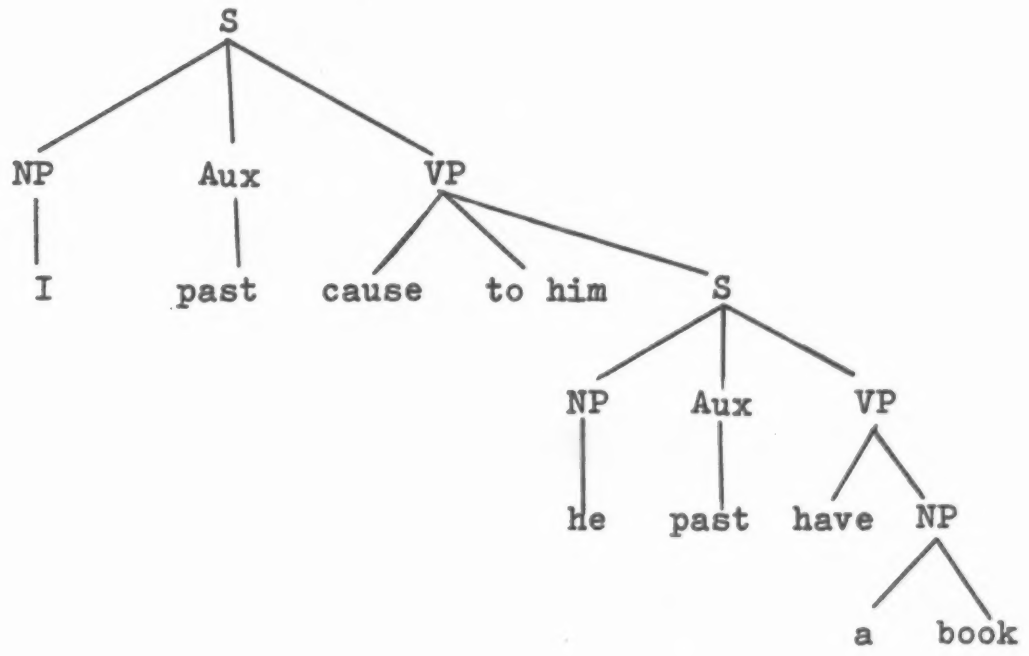
Again, this restriction is not imposed on Vgei in Mandarin. All Vgei sentences can be made passive by undergoing Bei transformation which is equivalent to passive transformation in English. The conditions and restrictions on Bei transformation will be made clear later.

3.4 Underlying structure of indirect object.

It has been argued that indirect objects in English are transformationally derived.[19] The argument is that for many verbs which take an IO and DO there exists a verb whose subject and object have essentially the same selectional restrictions and that, by so doing, deep structure relations to causative sentences can be accounted for. Thus:

151. I gave a book to him.

is assumed as having UPM like:



The difficulty with such solution has to do with the form of the transformation required for such derivation and the status of the embedded verb. There would be just as many transformations as there are verbal pairs with each transformation making reference to an appropriate verb. Apart from the difficulty of finding an appropriate verb, it also requires additional morphophonemic rules to rewrite the embedded verb as the verb of the matrix string (an unspecified causative verb). The most serious difficulty is that it is not always apparent just what the verb of the embedded structure is, or that there may be

several possibilities, the choice of which being entirely arbitrary.

In Mandarin, IO can occur either before DO or after it. But in each case, an IO is normally preceded by gei. Since the preposition gei regularly appears with two-object verbs, it would seem most natural to introduce it, together with IO, in the phrase structure component, rather than to introduce it separately for each verb by a transformation.

3.5 Ba transformation and Bei transformation

Verbs that may undergo Ba transformation are traditionally called disposal verbs. Disposal sentences express "how humans are treated, how objects are disposed of, how activities are carried out. Since it is specifically used for disposing, if the action is not of a disposal nature, then the disposal sentence cannot be used".[20] Simple verbs of perception, stative verbs, as a rule cannot occur with Ba. The following are ungrammatical:

152. *Wǒ Bǎ yüèliang kànjian le "I make the moon to be seen, - I see the moon"

153. *Wǒ Bǎ shēng yīng tīnjian le "I make the voice to be heard, - I hear the voice"

154. *Tā Bǎ shén xiāngxin "He believes in god"

155. *Tā Bǎ gǒu aì le "He loves the dog"

On the other hand, perceptual verbs and stative verbs when taking a resultative complement, are capable of occurring with Ba. Thus:

156. Wǒ Bǎ yüèliang kàn qīngcu le "I saw the moon clearly"
157. Wǒ Bǎ shēngyin tīng daò le "I heard the voice"
158. Tā Bǎ shén xìn toù le "He believes in god thoroughly"
159. Tā Bǎ goǔ aì de hěn "He very much loves the dog"

In general, all resultative complement verbs can undergo Ba transformation, which serve to front the DO (not IO, nor cognate object) to the position immediately before its verb.

Intransitive verbs, if compounded with a resultative complement, may still occur with Ba. We have:

160. Tā Bǎ jiaò shùei gòu le "He has had enough sleep"
161. Tā Bǎ shǎngdz kū yǎ le "He has cried his throat coarse"

The rule stating Ba transformation will look like:

162. SD: $\underset{1}{\underline{\left\{\begin{matrix}-le\\-guo\end{matrix}\right\} \; V \; X}} \quad \underset{2}{\underline{Ba \; NP}}$

SC: 2+1 Ø

A later aspect transformation will postpose the aspect marker -le or -guo after its verb.

The selectional restrictions on Ba sentences hold equally for Bei transformation. That is, verbs in construction with Ba and those which take Bei form essentially the same set of verbs.[21] Ba is the active counterpart of Bei, Bei is the passive form of Ba. In the following examples, Ba sentences are paired with Bei sentences:

163. a. Fǒ Bǎ fángdz sháole "The fire burned up the building"

b. Fángdz Bèi fǒ sháole

164. a. Tā Bǎ fàn chī bǎo le "He has eaten enough rice"

b. Fàn Bèi tā chī bǎo le

165. a. Tā Bǎ xìn shōudao le "He has received the letter"

b. Xìn Bèi tā shōudao le

166. a. Wǒ Bǎ jiào shuèi gòu le "I had had enough sleep"

b. Jiào Bèi wǒ shuèi gòu le

This analysis accounts for the nonoccurrence of Bèi in some sentences. We shall maintain that Bèi is obligatorily chosen in passive sentences in Mandarin but is normally deleted.

Consider the sentences:

167. Qián huā wǎnle "The money (was) wasted"

168. Fēijii rōngyi shěnhuaì "The airplane (was) easily damaged"

169. Fánshì gǎnshūo gǎn zhùo de doū shoū jinlai le "All those who can say and can do (were) called in"

In the absence of Bei, these sentences are viewed in traditional grammars as active in form but passive notionally. Since they are active, nominals like qǐan, fēiji and gǎn shūo gǎn zhùo are regarded as subjects and the verbs themselves intransitives.[22]

Actually, the involvement of an external agent is manifest in these sentences. Besides, when we want to state the synonymy of (167)-(169) with the following:

170. Bǎ qǐan hūa wǎn le

171. Fēiji rōngyi Bèi shěnhuaì

172. Bǎ fánshi gǎnshūo gǎn zhùo de doū shoū jìnlai le

we have to conclude that (167)-(169) are transformations of Bǎ or Bèi. In either case, the underlying subjects have been deleted. Qián fēiji etc. are DO's of transitive verbs huā, shěnhuai shoū jìnlai.

The verbs in the double object construction are verbs of gei type (Vgei). As a consequence, it meets the condition of the Ba transformation requiring the presence of either an action verb or a resultative verb. Every double object sentence may, therefore, undergo Ba transformation. (173) and (175) are regular double object sentences. (174) and (176) are corresponding Ba sentences:

173. Wǒ jǐgei tā yībiān shū "I send a book to him"
174. Wǒ Bǎ yībiǎn shū jǐgei tā
175. Wǒ língei tā tánggǔo "I saved some candy for him"
176. Wǒ Bǎ tánggǔo língei tā

It appears that in Bei sentences, the deletion of the formative Bei, though not the agent noun, is obligatory. Corresponding to (174) and (176) are (177a) and 178a). Sentences (177b) and (178b) are ungrammatical:

177. a. Yībiǎn shū wǒ jǐgei tā
b. *Yībian shū Beǐ wǒ jigei tā
178. a. Tángguo wǒ língei tā
b. *Tángguo Beǐ wǒlíngei tā

The restriction on rule (162) does not seem to hold for Vgei

sentences. According to the rule, the aspect marker -le or -guo must be selected. In the above Ba sentences, no aspect marker is required. Thus the Ba transformation associated with double object sentences may be formulated as follows:

179. SD: $\underset{1}{X}\ \underset{2}{Vgei\ NP}\ \underset{3}{Ba}\ \underset{4}{NP}\ \underset{5}{Y}$

SC: 1 2 3 4 5 → 1 Ø 3 4+2 5

3.6 Objectivized locative phrase

Analogous to the pair of sentences in English:

180. a. The bees swarm in the garden.

b. The garden swarms with bees.

there are a great number of sentences in Mandarin behaving in a similar way. Consider the sentences:

181. a. Mǐfeng báman le hūsuism "The bees swarm (in) the garden"

b. Hūayuan báman le mǐfeng

182. a. Xuéshēng zhùomǎn le jiaòshù "Students sit (in) the room"

b. Jiaòshù zhùomǎn le xuéshēng

183. a. Tōngxí zhuāng man le dùdz "Food filled up the stomach"

b. Dùdz shuāng măn le tōngxī

184. a. Yoúqi túman le qiángbî "The paint spread (over) the wall"

b. Qiangbi túman le góuqí

185. a. Gānzhe zhòngman le tiánlĭ "The sugarcane plants planted (on) the field"

b. Tiánli zhòngman le gānzhe

Each of the above pair of sentences are closely related. The observed difference between Mandarin and English is the lack of a preposition in sentences of the former. It seems clear that there is little reason for postulating prepositional phrases in the deep structure, though each is translatable as such in English. The absence of a deep structure preposition rules out the possibility of relating them to existential sentences. Furthermore, the number of this type of sentences is so large as to warrant setting up some sort of a transformation relating each pair of sentences.

Since the existence of the second sentence of each pair seems to depend on the main verb in the sentence and since the co-occurrence restriction works identically for each pair of sentences, it is most natural that the derivation of the second

sentence would be from the first by an optional extraposition transformation. The locative phrase, which appears in the English translation, might be looked upon as having lost its adverbial function in Mandarin and treated as objectivized locative phrase. The verbs which take an objectivized locative phrase are either Vt or Vi, followed by the word măn meaning "full". They together seem to constitute a special type of resultative verbs. We have observed that resultative verbs can undergo both Ba transformation and Bei transformation. This property, similarly, is shared by the present type of resultative verbs.

The transformation relating each pair of sentences may be stated as follows:

186. Objectivized locative phrase shifting rule

SD: $\underset{1}{NP_1}$ $\underset{2}{V\text{ -le}}$ $\underset{3}{\begin{bmatrix}Loc\\NP_2\end{bmatrix}}$

SC: 1 2 3 → 3+Ø 2+1 Ø

Condition: NP_2 is plural nouns or mass nouns.

4. Cases in Mandarin

4.1 The role of case in Mandarin

When dealing with the following sentences:

187. Fēnyen de shì wǒ shùo shǐ "The matter of marriage, I will be the master"

188. Zhèijìan shì wǒ méiyoǔ bānfua "This matter, I have no ways"

Wang Li speculates that the function of an NP in a sentence needs to be extended beyond its traditional subject-object confines. It ought to have additional grammatical functions in order to fulfill its potential roles in a sentence. Proto-Indo-European has eight cases, Modern Russian has six, suggesting that the multiple duties an NP is capable of performing in any sentence. He proposes the term guānxiyǔ to represent those functions other than normal subject-object functions.[23] Each guānxiyǔ involves an underlying preposition which is, however, generally not realized in the surface structure of a Mandarin sentence. Thus in (187), fenyen de shi "matters of marriage" and zhèijian shi in (188) are both guānxiyǔ where preposition guanyü "about, on" is optionally deleted. Similarly, we have:

189. Zhèyian de shì, tāmen de jīng yiàn taìdoū le "Such thing as this, they had had much experience"

190. Neìge lǔguan, wǒmen zhùguo de "That hotel, we have lived before"

The linguistic validity of notions subject and object have recently been challenged by Fillmore. In its stead, a case grammar has been proposed. This grammar presents convincing arguments that semantically relevant relations between sentences, to which semantic rules are to be sensitive, are not simply restricted to subject-object relations, but are the deeper notions of grammatical cases — ergative, locative, instrumental, agentive and dative, which are relevant to the subclassification of verbs.[24]

This grammar, as it is now formulated, apart from having several advantages over a subject-object grammar, at least in a particular language such as English, is capable of most naturally accounting for the general source of prepositions in English nominalization and passivization, one of the unresolved problems in English grammar.[25]

The question now is with the potentiality of a case grammar for Mandarin. Such a question cannot be answered meaningfully until the characteristics of preposition in Mandarin have been subjected to examination.

In Mandarin, except for localizers (used to introduce locative phrases) lǐ "the interior of, inside", páng "the side of, along", hoù "the back of, behind", qiǎn "the front of, in front", waí "the outside of", all other prepositions have class overlapping with verbs. Each and every such preposition may function also as a verb. Historically, all prepositions are evolved from

original transitive verbs, a number of the original prepositions have long dropped out of use.[26] Traces of this evolution are still found in the evidence that these prepositions can take the aspect marker -zhe, just as ordinary verbs do, although such aspectual functions have also been lost along with the development of prepositions. Prepositions, being so much verb-like, have been variously called particles (Mǎ jiànzhon: Mǎ shi wén tōng), relators (Lǚ shūxiang: zhōngguo wénfa yaòlul), conjunctors (Wáng Li: zhongguo yǔfa lilun), coverbs (Gao Mingkai: yuyenlun) and pre-transitives (Y. R. Chao: Mandarin Primer).

Prepositions typically associated with verbs in English such as to, depend on, rely upon, believe in, concern with, blame on, agree with are never found and Mandarin verbs corresponding to them are full-fledged transitive verbs. From the English grammatical point of view, then, there are probably no genuine intransitive verbs which require the presence of prepositions in order to govern an object.[27]

Nominalizations like:

191. The opening of the door with this key by the janitor.

where the ergative preposition is of, the instrumental preposition with and the agent preposition by do not occur in Mandarin. Since verbs in Mandarin are not associated with specific prepo-

sitions, and nominalizations do not effect any structural changes, it is possible for us to state prepositions for each case independently of the properties of verbs. All prepositions must, therefore, be thought of as filled in from the lexicon.

(1) Locative prepositions, zài "in, at, on", chóng "from", xiang "to, toward", cáo "toward", daò "to" and all localizers (called postpositions by some grammarians).

As in: zài shùshang fēi "on the tree fly, - fly on the tree"

chóng měiguo lái "from America come, - come from America"

xiàng shāntou Bá "toward the top of the hill climb, - climb toward the top of the hill"

dào ìndu qù "to India go, - go to India"

(2) Instrumental prepositions: yòng "with"

nǎ "with"

bèi "by"

Instrumental preposition is yòng if the preposition is followed by agent phrase, otherwise it is Bèi, as in:

Xìn Bèi fǒ shāole "The letters were burned by fire"

Xìn Bèi wǒ yòng fǒ shàole "The letters were burned by me with fire"

(3) Ergative prepositions: Bǎ

yǒu

The term "ergative" is normally used for the relation between the subject of the intransitive verb and the object of the tran-

sitive verb. In order to accomodate some particular cases in Mandarin, we need to extend the notion ergative in the following manner. Bă is the relation between the subject of the intransitive verb and the object of Bă sentences. Note that the range of Bă sentences is inclusive not only of transitive verbs but also of intransitive verbs when compounded with resultative complements. Yoŭ is used for the relation between the subject of the intransitive verb and its paraphrased yoŭ sentences.

(4) Dative prepositions: gĕi "to, for" and its synonyms wèi, tì, gūanyü "about"

As in: Wŏ maĭgei tā biăo "I sold to him a watch"

Wŏ liúgei tā fàn "I saved for him food"

Gūanyü zhèshi, wŏ kaòsu tā "About this, I tell him"

(5) Comitative prepositions: hàn "with"

gēn "with"

As in: Wŏ hàn tā yīqi qù "I with him together go"

Wŏ gēn nĭ shūofa "I talk with you"

(6) Agentive prepositions: Bèi and its synonums ràng, jiào, gĕi.[28]

Within the subject-object grammar, the solution to yoŭ sentences has not been made clear. The reason that yoŭ is introduced as ergative preposition, is motivated by the following consideration.

Consider the sentences:

192. a. Yoǔren chóng qíanmian láile "There is a person coming from the front"

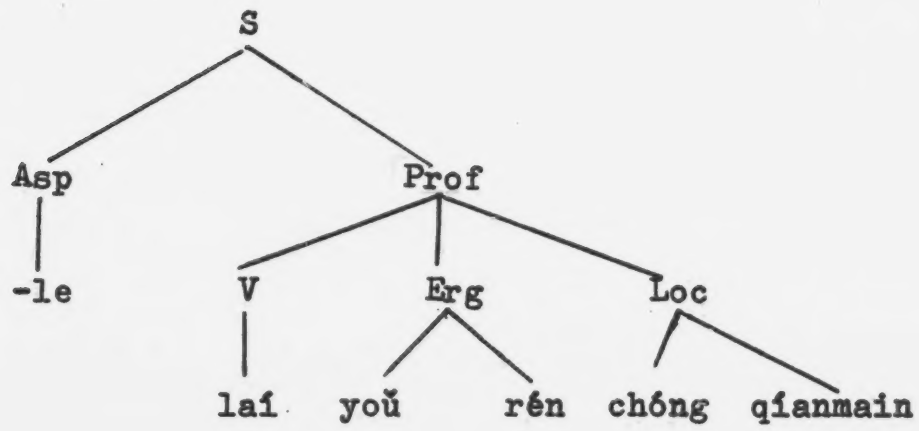
b. Qiánmian yoǔren láile

193. a. Bìshang tīezhe xiàngpian "On the wall is posted a picture"

b. Yoǔ xiàngpian tīe zaì bìshang

194. a. Neìge dìfang shǐle yīgeren "That place died a person, - A person died in that place"

Each of the locative sentences and existential sentences is paired with a paraphrase <u>yoǔ</u> sentence. To account for the appearance of <u>yoǔ</u>, it needs to be introduced by an adjunction transformation, treating it somehow as a transformational constant, within the subject-object grammar. If, however, in a case grammar, <u>yoǔ</u> is postulated as ergative preposition, the difficulty in explaining the source of <u>yoǔ</u> can be easily surmounted. The distinction of possessive versus existential <u>yoǔ</u>, which has been shown to be only superficial, is also invalidated here. Taking (192) as an illustration, we say it has the following UPM:



Thus chóng is deleted when fronted. In addition, we need to have a rule saying that the ergative yoǔ is never deleted in the subject position.

Sentences like:

195. a. Yoǔ shū zaí shūodz shang
b. Zhūodz shāng yoǔ shū

where no verb is apparent, we posit shì as the underlying main verb, the deletion of which is obligatory. When it is chosen, the sentence is to be marked as emphatic, as in:

196. a. Shì yoǔ shū zài shūodz shàng
b. Zhūodz shàng shì yoǔ shū

Locative phrase fronting is obligatory for locative sentences. In:

197. Jīeshang hěn zhènao "(On) the street is very crowded"

the locative preposition <u>zài</u> has been deleted. Thus the rules will look like:

198. <u>Locative phrase fronting in locative sentences</u>

SD: $\underset{1}{\text{Asp V}}$ $\underset{2}{\text{Erg}}$ $\underset{3}{\text{Loc}}$

SC: 1 2 3 → 3+1 2 Ø

199. <u>Zai deletion</u>

SD: $\underset{1}{\#}$ $\underset{2}{\text{P}}$ $\overset{\text{Loc}}{\underset{3}{\text{X}}}$

SC: 1 2 3 → 1 Ø 3

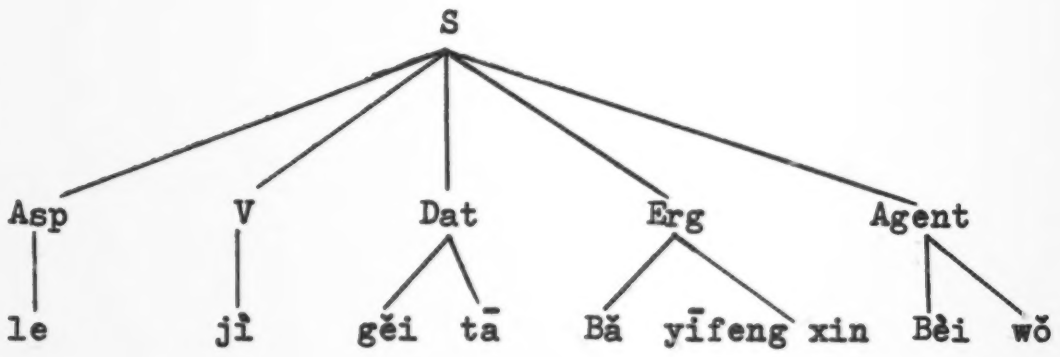
We have assumed <u>Bǎ</u> sentences as the active counterpart of <u>Bèi</u> sentences. That is, <u>Bǎ</u> is the ergative preposition, <u>Bèi</u> the atentive preposition in double object sentences (i.e. <u>gěi</u> sentences) as well as in <u>Bǎ</u> sentences (these two are co-existential).

A <u>Bǎ</u> sentence, and hence a <u>Bèi</u> sentence, has the following UPM given the sentences:

200. a. Wǒ jìpei tā yīfeng xìn le

b. Wǒ Bǎ yīfeng xìn jǐgei tā le

c. Yīfeng xìn Bèi wǒ jǐjei tā le



Since in the deep structure of a subject-object grammar, only one NP directly dominated by S is allowed, functions of NP, like Dative, Locative and Instrumental, need transformation rules to obtain derived structures, as if these functions were subordinated to the subject function. This need not be the case in a case grammar. The branching structures required are also less complicated.

It is highly feasible that we can forward this discussion along the lines of a case grammar effectively. At present, the solutions to predicate adjective and predicate noun sentences have not been formulated. But it appears that the major constructions in Mandarin — locative sentences, existential sentences, yoǔ sentences, Bǎ sentences, Bèi sentences and double-object sentences can be adequately explained in a case grammar, with less branching structures, and with capacity for accounting for sentence relationships in a wider range.

4.2 Conclusion

In the course of this study, it has been found that Mandarin has a relatively more free word ordering than has been

commonly assumed.[29]

Sets of syntactically related sentences with the same underlying representation abound in the language. The characteristic topic-comment nature of sentence structure and the rarity of prepositions made use of in normal sentences make it possible to freely invert elements in a sentence. Such observation seems to point toward the feasibility of a proposal recently made by Saumjan and Soboleva, which, however, has been dismissed by Chomsky as an occupation with rules of performance and hence without significant bearings on the theory of grammar.[30]

Problems dealt with in this study are limited to those which have been repeatedly raised in traditional grammars. More general problems such as complement constructions, pivotal constructions (telescoping verbs) have not been touched upon. Special attention is given to constructions involving locative phrases. Evidence is given for the conclusion that these locative phrases are transformally derived. In the deep structure, these constructions are shown to be related.

Subject deletion and object transposition are found to be common phenomena in Mandarin. Such transformations are shown to be connected with locative phrase fronting or with Bǎ, Bèi transformations.

Finally, brief inquiry with the role of case in Mandarin is made without, however, facing a wholescale attempt at a Mandarin

case grammar. It is likely that such an attempt promises to be a fruitful one in the time to come.

Footnotes

[1]The controversy over the subject-object problem alluded to here has been going on since the late 50's, and is by no means over. Some recent discussions with respect to the problem can still be found in the journal Zhōnggwoyuwen.

[2]Zhāng Zhi-gōng Hànyǔ Yǔfa Chángshi pp. 140-145.

[3]Wǎng Li "The definition of the subject and their applications to Mandarin" YWXX 1965, January pp. 23-26.

[4]Xü zhòngren "Transformed sentences and sentences as predicate" YWXX 1955, July pp. 18-21.

[5]J. J. Katz and J. A. Fodor "The structure of a semantic theory" in The Structure of Language pp. 479-518.

[6]Zhāng qíchun "Negative sentences and inverted sentences" YWXX 1955, August pp. 29-31.

[7]For a criticism of this position, see A. A. Dragunov "Talks on Mandarin grammar" ZGYW. 1955, January; Editor of ZGYW, Grammatical categories in Mandarin, 1956, Peking.

[8]Noam Chomsky, Aspects of the theory of Syntax 1965, pp. 63-73.

[9]Sentence pairs like "it is dark in the room" and "the room is dark" have been analyzed as having it + Locative phrase as the underlying subject. See D. T. Langendoen, "Some problems concerning the English expletive it", to appear in Project on Linguistic Analysis No. 13

[10]See, for instance, A. A. Dragunov, "On the classification of simple sentences in Mandarin," ZGYW 1957, October pp. 40-44.

[11]See A. Y. Hashimoto "Embedding structures in Mandarin" in POLA No. 12. For a different treatment of the problem see A. A. Dragunov's Studies on Mandarin Grammar, Vol. 1, esp. pp. 92-150; Y. R. Chao's Mandarin Primer and Grammar of Spoken Chinese.

[12]cf. Y. R. Chao, Grammar of Spoken Chinese, Forthcoming, Section 10.1

[13]The term "cognate object", as used here, follows the tradition in Mandarin grammars and, hence, covers many more cases than do grammars of Indo-European languages.

[14]Lǐ Rénjian, "Can the term object be abolished", YWXX, 1956, February, pp. 25-29.

[15]B. Hall, Subject and object in Modern English, MIT Dissertation 1965, pp. 34-35.

[16]The question as to what part of speech the word -gei belongs to will be ignored here. There are obviously three homophonous gei's with distinct syntactic properties. One is the verb gei, one is written here as -gěi which is equivalent to "to, for" in English; the last one is equivalent to Bei to be discussed later. Traditional grammars lump them together as one word, missing this important distinction. As for ti "for" and wèi "for", other than that they do not occur as much in spoken language, there is actually no difference. Their syntactic functions fall within the domain of -gěi. Consequently no further mention of them will be made here.

[17]The verb gěi itself is assumed in the deep structure as actually gěigei in order to account for the occurrence of such sentences as

Wǒ geǐ qián geǐ ta "I gave (to) him the money"

Thus the underlying structure, as we shall see, posited for verbs of the Vgei does not fail in this particular verb.

[18]C. J. Fillmore, "Indirect object constructions in English and the ordering of transformations", POLA No. 1, 1962.

[19]G. Lee, Causative and indirect object sentences, unpublished paper, 1965.

[20]Wang Li, Modern Mandarin grammar Vol. 1, p. 161, 1954.

[21]Other synonyms of Bǎ are jīang and nǎ; other synonyms of Bei include ràng, jiao, aī, and geǐ. Their syntactic functions are indistinct from those of Bǎ and Bei.

[22]Wang Li, op. cit. pp. 31-32. He adds that the native feelings for active versus passive forms are very opaque. Also Y. R. Chao, Grammar of Spoken Chinese (forthcoming) 10.53.

[23]Wang Li, op. cit., pp. 32-33.

[24]C. J. Fillmore, "A modern theory of case", to appear in POLA No. 13. The earliest speculation of a universal case system underlying the grammatical relations in all natural languages is perhaps that of Port-Royal grammar. See Noam Chomsky: Cartesian Linguistics, Harper and Row, 1966, pp. 44-46.

[25]In Japanese, NP's have been analyzed by Professor Fillmore as always containing particles ni, o, wa, de for essentially the same reasons.

[26]cf. prepositions in English such as pending, during, except, save, past, according, etc.

[27]Presumably, we might wish to regard the following cases as results from deleting prepositions:

Ta zhuo yidz	"He sits (on) the chair"
Ta shuei dachuang	"He sleep (on) the large bed"
Ta tiao baleiwa	"He dances ballet"
Ta pao xinwen	"He runs (for) the nes"
Ta qu xuexiao	"He goes (to) school"

But class of verbs of this sort is so large that it is more natural to treat them as genuine transitives.

[28]This list is by no means exhaustive. But it is likely that all prepositions that are made use of fall within these five categories, allowing overlapping cases.

[29]Jespersen's assertion that Mandarin has the invariable rule that the subject is placed before the verb is clearly in error, even taking his position concerning subject-object relations into consideration. See O. Jespersen, The philosophy of Grammar, 1934, p. 156.

[30]Noam Chomsky, Aspects of the Theory of Syntax, MIT Press, 1965, pp. 125-127.

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